

REMARKS

This amendment responds to the office action dated April 5, 2006.

The Examiner objected to the drawings, contending that they did not disclose “processing of said data for image characteristics” and “said first scan written into a memory.” The applicant respectfully suggests that the Examiner is incorrect. FIG. 2A clearly shows a front end image processing unit 60, which is disclosed in the specification at p. 5 line 25 to p. 6 line 6 as performing “several processes that can be performed concurrently and are useful for either determining the size of the original or *preparing the scan data for production of the copy*, even though the size of the copy is unknown.” (emphasis added). The specification gives, as examples of processes included in the front end image processing unit, background removal to change the image background to white, as well as separate filtering of text and natural backgrounds after segmenting the image, if needed. Each of these examples is a type of image characteristic processing. Given as examples of processes, within the unit 60, that are used for size detection are updating the spatial context of scan data (see p. 7 at lines 1-3). The applicant also notes that FIG. 2A indicates that data from each scan line is processed by the processing unit 60 *prior to it being stored in memory* at step 64. Scan lines are processed through these processing units sequentially. Hence FIG. 2A fully discloses the limitation “where said step of determining at least one of a magnification and a reduction of said original is performed over a time interval that begins before data from said first scan is written into said memory, and is performed concurrently with the processing of said data for image reproduction characteristics

other than scaling over at least a portion of said time interval.” The applicant therefore respectfully requests that the Examiner withdraw the objection to the drawings.

The Examiner objected to claims 5, 11, and 19 for a lack of antecedent basis for the term “said data.” As suggested by the Examiner, each of these independent claims has been amended to recite the term “said scan data.

The Examiner rejected claims 5-13 and 19-22 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement and failure to enable the claimed subject matter. The Examiner’s rejection is premised on the assertion that the specification does not describe “calculation” within the claimed time intervals. To the extent that the term “calculation” implies the specific step that itself numerically quantifies the dimensions of a scanned image, the applicant agrees. Accordingly, applicant has broadened claim 5 to recite the step of where “determining at least one of a magnification and a reduction of said original is performed over a time interval that begins before data from said first scan is written into said memory.” As stated earlier with respect to the Examiner’s objections to the drawings, the specification specifically indicates that the front end processing unit includes “processes that . . . are useful for . . . determining the size of the original” and lists several specific processes that facilitate determining the size of the original being scanned. Similarly, claims 11 and 19 recite the limitation of “where said transforming said data is performed over a time interval that begins before said scan data is written into said memory, and is performed concurrently with the processing of said scan data for image reproduction characteristics other than scaling over at least a portion of said time interval.” Therefore each of claims 5, 11 and 13, as well as their

respective dependent claims, are enabled by the specification and demonstrate possession by the inventor of the claimed subject matter.

The Examiner rejected claims 5-13 and 19-22 under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner first argues that it is not possible to begin the step of “[determining] at least one of a magnification and a reduction of said original is performed over a time interval [that begins] before data from said first scan is written into memory.” As indicated previously, though the final original size, and hence the magnification ratio to fit an output dimension, may not be numerically fixated prior to scan data being written into *some* memory, manipulation or modification of the scan data, which both facilitates and is part of the procedure for determining document size/magnification ratio, may commence prior to writing the data into the memory from which the printed output is read.

Second, the Examiner argues that it is unclear what steps are being performed over the claimed time interval, and what portions are being done over a portion of a time interval. The applicant respectfully argues that the claim language is clear. With respect to claim 5, the relevant limitation is “where said step of determining at least one of a magnification and a reduction of said original is performed over a time interval that begins before data from said first scan is written into said memory, and is performed concurrently with the processing of said scan data for image reproduction characteristics other than scaling over at least a portion of said time interval.” The step of “determining a magnification and a reduction of said original *to scale* a copy of said original to fit at least one of a length and a width of said copy medium” (as quoted in limitation b) thus defines the beginning and ending of the claimed time interval, as the

Examiner acknowledges. The beginning of that claimed time interval precedes the beginning of data from the first scan being written into memory. The step of “determining at least one of a magnification and a reduction of said original” for scaling purposes “is performed concurrently with the processing of said scan data for image reproduction characteristics *other than scaling over at least a portion* of said time interval.” This latter limitation merely means that processing scan data for scaling purposes and processing scan data for other than scaling purposes *overlaps* for some portion of time. In other words, there simply has to be some period during the claimed time interval for processing for scaling purposes, during which processing for purposes other than scaling is also taking place. (Processing for other than scaling purposes begins before or after the processing for scaling purposes begins, but does not *begin after* processing for scaling *ends*. Similarly, processing for other than scaling purposes ends before or after the processing for scaling purposes ends, but does not *end before* processing for scaling *begins*.) Thus claim 5 clearly defines what is claimed. Claim 11 and 19 are similarly clear. Therefore, the applicant respectfully requests that the Examiner withdraw the rejection of the pending claims under 35 U.S.C. § 112, second paragraph.

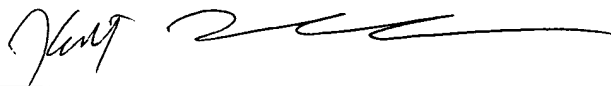
The Examiner rejected claims 5-13 and 19-22 under 35 U.S.C. § 103(a) as being obvious in view of respective combinations including Gusmano, U.S. Patent No. 5,796,877 and Takahagi, U.S. Patent No. 6,621,944. The Examiner’s rejection is improper for the same reasons as stated in the previous office action. Specifically, Gusmano necessitates a prescan, hence all resizing calculations are finished before the full resolution scan takes place, and are not done “concurrently with processing of said data for image reproduction characteristics other than

Appl. No. 09/823,457
Amdt. dated July 5, 2006
Reply to Office Action dated April 5, 2006

scaling.” Moreover, to the extent that Takahagi discloses an embodiment of a copier utilizing a feeding tray where resizing calculations may be made concurrently with other image processing manipulations, such an embodiment always begins resizing determinations *after* scan data is written into the memory from which printed output is read. *See* FIG. 5 of Takahagi (describing the feeding tray embodiment where data is fed to the size/base/color unit 21 *after* scan data is written into the memory 28 from which printed output is read in steps 6-12). Therefore, even if Takagagi were properly combinable with Gusmano (which it is not, for the reasons stated in the prior amendment) the combination would still not disclose all claimed limitations. Therefore, the applicant respectfully requests that the Examiner withdraw the obviousness rejections of claims 5-13 and 19-22.

In view of the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of claims 5-13 and 19-22.

Respectfully submitted,



Kurt Rohlfs, Reg. No. 54,405
Chernoff Vilhauer McClung and Stenzel
1600 ODS Tower
601 SW Second Avenue
Portland, OR 97204
Telephone: (503) 227-5631
Facsimile: (503) 228-4373